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Dainana-Chisan Bldg., 2-3, Nishinakajima 6-chome,
Yodogawa-ku, Osaka-shi, Osaka 5320011 (JP). **KAN-**
ZAKI, Yoshio [JP/JP]; c/o Uni-Chemical Co., Ltd., 11-12,
Shiroyamadai 5-chome, Sango-cho, Ikoma-gun, Nara
6360824 (JP).

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(74) Agents: **OKABE, Masao** et al.; No. 602, Fuji Bldg., 2-3,
Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP).

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(71) Applicant (*for all designated States except US*): **CANON
KABUSHIKI KAISHA** [JP/JP]; 3-30-2, Shimomaruko,
Ohta-ku, Tokyo 1468501 (JP).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **ZHANG, Zuyi**
[CN/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2,
Shimomaruko, Ohta-ku, Tokyo 1468501 (JP). **SAKAKI-**
IBARA, Teigo [JP/JP]; c/o CANON KABUSHIKI
KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo
1468501 (JP). **KOBAYASHI, Motokazu** [JP/JP]; c/o
CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko,
Ohta-ku, Tokyo 1468501 (JP). **YAMADA, Masayuki**
[JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2,
Shimomaruko, Ohta-ku, Tokyo 1468501 (JP). **ERITATE,**
Shinji [JP/JP]; c/o CANON KABUSHIKI KAISHA,
3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP).
ITO, Iko [JP/JP]; c/o Uni-Chemical Co., Ltd., No. 615,

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(54) Title: ELECTROLYTE MEMBRANE OF SILOXANE-BASED POLYMER AND SOLID POLYMER FUEL CELL UTILIZING THE SAME

(57) Abstract: An electrolyte membrane made of a phosphate-containing siloxane-based polymer for fuel cell, where the polymer comprises a siloxane backbone and a poly(meth)acrylate chain to which phosphate groups are attached, and the polymer is formed by vinyl polymerization of a silane compound having a (meth)acrylate functional group or a hydrolysis-polycondensation product thereof and a (meth)acrylate compound having a phosphate group, followed by siloxane crosslinking. The electrolyte membrane of a siloxane-based polymer has a high conductivity for a fuel cell.

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